AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A method for curing one or more parts, comprising:

determining, for each evaluator of a plurality of evaluators, a corresponding curing predictive effectiveness;

wherein the step of determining includes obtaining a plurality of predetermined curing conditions, and curing at least one part at each of the predetermined curing conditions for obtaining an output from each evaluator for each predetermined curing condition;

wherein for each evaluator, E, of said evaluators, said step of determining determines the corresponding predictive effectiveness according to a correlation between (a1) and (a2) following:

(a1) outputs by the evaluator E, wherein for each curing condition, CC_j, of the curing conditions, there is a portion of the outputs obtained when the evaluator E is provided with a sequence of impedance responses from a device, the sequence of impedance responses being indicative of impedance measurements of the at least one part being cured at its the curing condition CC_j[[;]], and in curing equipment that is also to be used in curing a subsequent part, and

(a2) for each curing condition, CC_k, of the curing conditions, a curing time obtained from curing a curable compound at the curing condition CC_k, wherein the curable compound is expected to have a composition corresponding to the at least one part cured at the curing condition CC_k;

providing, for each of a plurality of predetermined frequencies, an electrical current to the device, wherein the device outputs signals indicative of impedance measurements for curing the subsequent part in the curing equipment;

receiving, for each of said frequencies, an impedance data stream including a sequence of impedance responses from said device during the curing of the subsequent part;

for each of one or more of the evaluators, activating the evaluator for obtaining a corresponding result related to a prediction of a cure time of the subsequent part, when the evaluator is provided with a corresponding activation input from one of said impedance data streams;

using the corresponding results from the one or more evaluators for obtaining a predicted cure time for the subsequent part;

wherein a step of identifying is performed prior to said step of using, and said step of identifying identifies at least one of the evaluators, E_1, for predicting a cure time for the subsequent part, wherein the corresponding predictive effectiveness for E_1 is better than the corresponding predictive effectiveness of at least one other of the evaluators.

2. (Previously Presented) The method of Claim 1, wherein each of the curing conditions includes at least a curing temperature, and an identifier for identifying a particular batch from which a rubber compound is obtained as the curable compound.

3. (Currently Amended) The method of Claim 1, wherein for each of the one or more evaluators, the corresponding activation input includes a predetermined segment of an entire impedance data stream indicative of the impedance measurements of ~~a curable compound~~ the subsequent part in response to a particular current having one of the frequencies being input to the device.

4. (Previously Presented) The method of Claim 3, wherein said particular frequency is one of the predetermined frequencies.

5. (Previously Presented) The method of Claim 1, wherein the ~~rubber~~ curable compound includes a rubber polymeric compound.

6. (Previously Presented) The method of Claim 1, wherein said curing equipment includes at least one of: an injection molding equipment, a compression molding equipment, a transfer molding equipment, a belt press, and an autoclave.

7. (Currently Amended) The method of Claim 1, wherein the ~~rubber~~ curable compound includes at least one of: styrene-butadiene, polybutadiene, polyisoprene, ethylene-propylene, butyl, halobutyl, nitrile, polyacrylic, neoprene, hypalon, silicone, fluorcarbon elastomers, polyurethane elastomers, natural rubber and hydrogenated nitrile-butadiene rubber.

8. (Previously Presented) The method of Claim 1, wherein for each curing condition, CC, of at least most of the curing conditions, a curable compound from which the at least one part is curing at the curing condition CC, and the curable compound of (a2) for curing at CC are from a same curable compound batch.

9. (Previously Presented) The method of Claim 1, wherein a curable compound cured for creating the subsequent part has each of its constituent ingredients in a range of some instance of the curable compound that is cured to create the at least one part at one of the curing conditions.

10. (Currently Amended) The method of Claim 1, wherein for each curing condition, the curing time is indicative of an elapsed time for curing a corresponding ~~rubber~~ curable compound to a predetermined elastic torque value.

11. (Currently Amended) The method of Claim 10, wherein each curing time is indicative of an elapsed time for curing the corresponding ~~rubber~~ curable compound to a percentage of a maximum elastic torque.

12. (Previously Presented) The method of Claim 1, wherein said determining step includes performing a statistical correlation between the outputs of (a1), and the curing times of (a2).

13. (Previously Presented) The method of Claim 1, wherein the curing times of (a2) are determined using a rheometer.

14. (Previously Presented) The method of Claim 1, wherein at least one of the evaluators determines one of: (1) a maximum impedance value, (2) a time value for a maximum impedance, (3) a time value for a minimum impedance, (4) a value indicative of an area under a graph of a series of impedance values, (5) a slope obtained from a series of impedance values, (6) a dampening coefficient of a curve fitted to a series of impedance values, and (7) an amplitude coefficient of a curve fitted to a series of impedance values.

15. (Previously Presented) The method of Claim 14, wherein at least most of (1) through (7) are determined by the evaluators.

16. (Previously Presented) The method of Claim 1, wherein at least a majority of the plurality of predetermined frequencies are in a range of 10 hz to 5 Mhz.

17. (Previously Presented) The method of Claim 1, wherein the number of different frequencies of the plurality of predetermined frequencies can be greater than or equal to 4.

18. (Previously Presented) The method of Claim 1, wherein said device includes at least one of: a non-bridged dielectric or impedance measurement circuit, and a voltage divider circuit for determining the impedance responses of (a1).

19. (Previously Presented) The method of Claim 18, wherein said device determines the impedance responses of (a1) using an output from the non-bridged dielectric or impedance measurement circuit.

20. (Previously Presented) The method of Claim 18, wherein said device determines the impedance responses of (a1) using an output from the voltage divider circuit.

21. (Previously Presented) The method of Claim 1, wherein an electrode is operatively connected to the curing equipment and the device, wherein the impedance measurements for the subsequent part, and the impedance responses for the subsequent part are indicative of responses from a capacitor formed using the electrode and a curable compound from which the subsequent part is created.

22. (Previously Presented) The method of Claim 1, further including a step of dividing at least one of the impedance data streams into a plurality of segments.

23. (Previously Presented) The method of Claim 22, wherein for at least one of the evaluators, its corresponding activation input is one of the segments.

24. (Previously Presented) The method of Claim 1, wherein said step of using includes combining the corresponding results from at least two evaluators.

25. (Previously Presented) The method of Claim 24, wherein said combining step includes providing the corresponding results from the at least two evaluators to a predetermined multiple regression equation.

26. (Canceled)

27. (Previously Presented) The method of Claim 1, further including the step of:

selecting the outputs of (a1) for each of a subset of the evaluators and their corresponding activation inputs;

combining the selected outputs in each of a plurality of combinations; and

determining at least one of the combinations having a predictive effectiveness that is better than the predictive effectiveness of at least one of the evaluators.

28. (Currently Amended) The method of Claim 27, wherein said selecting step includes choosing for the outputs of (a1) that ~~are~~ correlate better with the ~~known~~ curing times of (a2) than the outputs of (a1) that are not chosen.

29. (Previously Presented) The method of Claim 27, wherein said combining step includes:

obtaining a value indicative of a maximum number of the outputs to be provided in each of the combinations.

30. (Currently Amended) The method of Claim 27, wherein said step of determining at least one of the combinations includes performing a multiple regression of at least some of the combinations against the ~~known~~ curing times of (a2).

31. (Previously Presented) A method for curing one or more parts, comprising:

obtaining, for each of a plurality predetermined curing conditions, a corresponding curing time for curing a corresponding curable material;

determining, for each evaluator of a plurality of evaluators, a corresponding curing predictive effectiveness;

wherein the step of determining includes, for each of the predetermined curing conditions, curing at least one part at the predetermined curing condition for obtaining an evaluator output from each evaluator when the evaluator is provided with data indicative of corresponding impedance responses from the curing of the part at the predetermined curing

condition;

wherein for each evaluator, E, of said evaluators, said step of determining determines the corresponding predictive effectiveness according to a correspondence between (a1) and (a2) following:

(a1) the evaluator outputs by the evaluator E, and

(a2) the curing times;

preferring one or more of the evaluators over another of the evaluators using their respective corresponding curing predictive effectiveness;

for each of the preferred one or more evaluators, activating the evaluator for obtaining a result related to a prediction of a cure time of a subsequent part, when the evaluator is provided with data indicative of corresponding impedance responses from the curing of the subsequent part;

wherein a step of identifying is performed prior to said step of using, and said step of identifying identifies at least one of the evaluators (E_1) for predicting a cure time for the part, wherein the predictive effectiveness for E_1 is better than the predictive effectiveness of at least one other of the evaluators.

32. (Previously Presented) The method of Claim 31, wherein the step of preferring includes determining a corresponding weighting for each of the one or more evaluators.